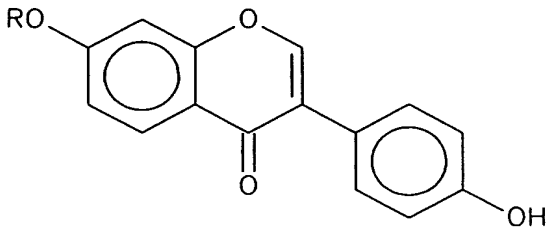
What is claimed is:

1. A method for inhibiting ALDH-2 in a human comprising contacting ALDH-2 with a compound of formula I

Formula I 

wherein:

R is substituted or unsubstituted and is a

sugar moiety;

peptide;

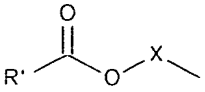
polyether;

straight chain alkyl having 1-11 carbon atoms, or branched chain alkyl having 1-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 1-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

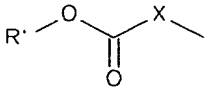
hydroxyalkyl where the alkyl portion is straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

aminoalkyl where the alkyl portion is straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

carboxyalkyl where the alkyl portion is straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms; or



or



where X is straight chain alkylene having 2-11 carbon atoms, or branched chain alkylene having 2-30 carbon atoms, where the branched chain alkylene comprise a straight chain alkylene portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms; and

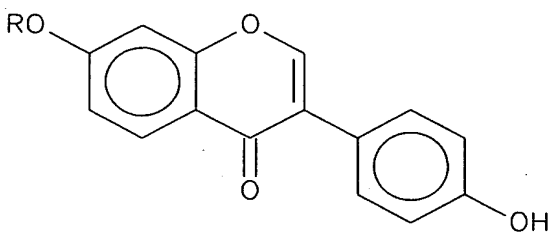
R' is straight or branched alkyl having 1-6 carbon atoms,

in an amount effective to increase concentration of 5-hydroxyindole-3-acetic acid or 3,4-dihydroxyphenylacetic acid.

2. The method of claim 1 wherein the sugar moiety is glucosyl, L or D aldo or keto-tetrose, pentose, heptose, an amino, alcohol or acid derivative of tetrose, pentose, hexose or heptose, a deoxyanalog of tetrose, pentose, hexose or heptose.

3. A method for therapeutically treating alcohol consumption in a human comprising administering a compound of formula I

Formula I



wherein:

R is substituted

or unsubstituted and is a

sugar moiety;

peptide;

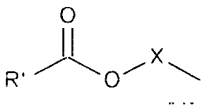
polyether;

straight chain alkyl having 1-11 carbon atoms, or branched chain alkyl having 1-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 1-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

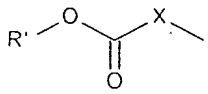
hydroxyalkyl where the alkyl portion is straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

aminoalkyl where the alkyl portion is straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

carboxyalkyl where the alkyl portion is straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms; or



or



where X is straight chain alkylene having 2-11 carbon atoms, or branched chain alkylene having 2-30 carbon atoms, where the branched chain alkylene comprise a straight chain alkylene portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms; and

R' is straight or branched alkyl having 1-6 carbon atoms,

in an amount effective to increase concentration of an aldehyde formed during catabolism of a neurotransmitter.

4. The method of claim 3 wherein the sugar moiety is glucosyl, L or D aldo or keto-tetrose, pentose, heptose, an amino, alcohol or acid derivative of tetrose, pentose, hexose or heptose, a deoxyanalog of tetrose, pentose, hexose or heptose.

5. The method of claim 3 wherein the neurotransmitter is serotonin or dopamine.

6. The method of claim 3 wherein the aldehyde is 5-hydroxyindole-3-acetaldehyde or 3,4-dihydroxyphenyl-3-acetaldehyde.

7. A method for identifying compounds effective in reducing alcohol consumption comprising selecting a test compound,

establishing a neurotransmitter enzyme system,

allowing catabolism of a neurotransmitter into aldehyde,

allowing catabolism of aldehyde into carboxylic acid,

measuring a first concentration of aldehyde,

contacting the candidate compound with the neurotransmitter enzyme system,

measuring a second concentration of aldehyde,

comparing the first concentration to the second concentration.

8. The method of claim 7 wherein the neurotransmitter is serotonin or dopamine.

9. The method of claim 7 wherein the aldehyde is 5-hydroxyindole-3-acetic acid or 3,4-dihydroxyphenylacetic acid.

10. A method for identifying compounds effective in reducing alcohol consumption comprising selecting a test compound,

establishing a neurotransmitter enzyme system,

allowing catabolism of a neurotransmitter into aldehyde,

allowing catabolism of aldehyde into carboxylic acid,

contacting the candidate compound with the neurotransmitter enzyme system,

measuring a concentration of aldehyde, and

comparing the concentration of aldehyde with concentrations of aldehyde produced by compounds having known antidipsotropic activity.

11. The method of claim 10 wherein the neurotransmitter is serotonin or dopamine.

12. The method of claim 10 wherein the aldehyde is 5-hydroxyindole-3-acetic acid or 3,4-dihydroxyphenylacetic acid.